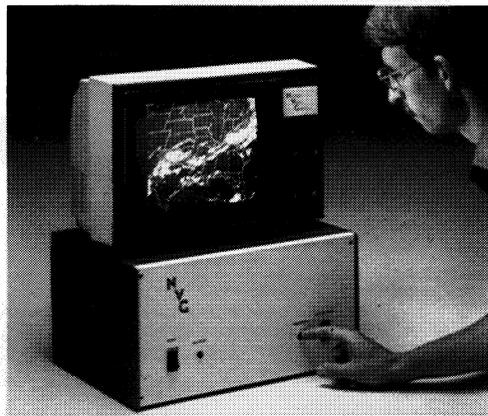


Weather Data Receiver

Included in the family of remote sensing satellites are those which report weather and other environmental information. For the most part, these satellites beam their signals to Earth stations equipped with large antennas and elaborate data processing equipment. The resulting weather pictures are relayed via commercial telephone land lines to users, who need their own processing systems. Because of the expensive equipment required, maintenance costs and phone line charges, satellite data reception is largely limited to government agencies, meteorological organizations and large television stations or networks. To make weather pictures available to a broader user community, Northern Video Graphics, Inc., Minneapolis, Minnesota has developed a low-cost satellite receiving system intended for such users as independent meteorologists, agribusiness firms, small airports or flying clubs, marine vessels and small TV stations. Called Video Fax, the system is based in part on NASA technology.

Video Fax is designed for use with certain satellites, such as the GOES (Geostationary Operational Environmental Satellite) spacecraft operated by the National Oceanic and Atmospheric Administration, the European Space Agency's Meteosat and Japan's Geostationary Meteorological Satellite. By dictum of the World Meteorological Organization, signals from satellites are available to anyone without cost. Thus, the Video Fax user can acquire signals directly from the satellite and cut out the middle man, enabling savings in telephone charges and other processing costs. The unit sells for about one-fifth the cost of the equipment used by TV stations.



Video Fax consists of a two-meter diameter antenna (below) whose design is based on technology developed by Goddard Space Flight Center; a receiver; a microprocessor-controlled display computer; and a video monitor (above). The computer stores data from the satellites and converts it to an image which is displayed on the monitor. The weather map can be preserved as signal data on tape or it can be stored in a video cassette as a permanent image.

